

US EPA ARCHIVE DOCUMENT

Environmental Indicator Domain							
#	Set	Indicator	Data Collection Source	Units (annual)	Comments	2006 data	2007 data
ENV1	Air Quality	Polycyclic Aromatic Hydrocarbon (PAH) emissions	Mills provide data or Ecology collect from Toxics Release Inventory (TRI)	Pounds per air dried ton of production.	Included as selected indicators for "carcinogens discharged," note selection process in report.	ECY	ECY
ENV1(1)		Benz(a)anthracene			Weighted into ENV1 by toxic equivalency factor (TEF), if appropriate	NA	NA
ENV1(2)		Benz(o)pyrene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(3)		Benzo(b)fluoranthene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(4)		Benzo(k)fluoranthene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(5)		Chrysene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(6)		Dibenz(a,h)anthracene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(7)		Indeno(1,2,3-cd)pyrene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(8)		Acenaphthene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(9)		Acenaphthylene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(10)		Anthracene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(11)		Benzo(ghi)perylene	Ecology collect from TRI		Weighted into ENV1 total by TEF, if appropriate	ECY	ECY
ENV1(12)		Fluoranthene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(13)		Fluorene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(14)		Naphthalene	Ecology collect from TRI		Weighted into ENV1 total by TEF, if appropriate	ECY	ECY
ENV1(15)		Phenanthrene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV1(16)		Pyrene			Weighted into ENV1 total by TEF, if appropriate	NA	NA
ENV2	Air Quality	Formaldehyde emissions	Mills provide data or Ecology collect from Toxics Release Inventory (TRI)	Pounds per air dried ton of production.	Included as selected indicators for "carcinogens discharged," note selection process in report. Weighted by TEF, if appropriate.	ECY	ECY
ENV3	Air Quality	Chloroform emissions	Mills provide data or Ecology collect from TRI	Pounds per air dried ton of production.	Included as selected indicators for "carcinogens discharged," note selection process in report. Weighted by TEF, if appropriate.	ECY	ECY
ENV4	Air Quality	NO_x emissions	Ecology collect data from local air authorities or monthly emissions reports	Pounds per air dried ton of production total and per pollutant	Included as select indicators for "intensity of total emissions."	ECY	ECY
ENV5	Air Quality	SO_x emissions	Ecology collect data from local air authorities or monthly emissions reports	Pounds per air dried ton of production total and per pollutant	Included as select indicators for "intensity of total emissions."	ECY	ECY
ENV6	Air Quality	Particulate matter (PM) emissions	Ecology collect data from local air authorities or monthly emissions reports	Pounds per air dried ton of production total and per pollutant	Included as select indicators for "intensity of total emissions."	ECY	ECY
ENV7	Air Quality	Carbon dioxide emissions	Mills provide data from environmental records or stack tests	Pounds per air dried ton of production total and per pollutant	Included as select indicators for "intensity of total emissions."	ECY	ECY

ENV8	Air Quality	Total emissions compared to permit limit	Ecology provides data	Ratio of emissions to permit level	Ecology will work with mills and/or local air agencies to collect data for analysis. This ratio may inform other emissions indicators units rather than standing alone.	ECY	ECY
ENV9	Air Quality	Total greenhouse gas emissions in carbon equivalent units	Mills provide data using GHG tool	Tons carbon total and per air dried ton of production	Data from NCASI tool completion by mills, will be refined if models and emission factors change.	baseline year	35% reduction from baseline (2006) to 2008
ENV10	Air Quality	Total reduced sulfur (TRS) emissions	Ecology collect data from local air authorities or monthly emissions reports	Pounds per air dried ton of production	Included as select indicators for "intensity of total emissions."	ECY	ECY
ENV11	Air Quality	MEK emissions	Mills provide data or Ecology collect from TRI	Pounds per air dried ton of production	Included as select indicators for "toxic emissions." Weighted by TEF, if appropriate.	ECY	ECY
ENV12	Air Quality	Lead emissions	Mills provide data or Ecology collect from TRI	Pounds per air dried ton of production	Included as select indicators for "toxic emissions." Weighted by TEF, if appropriate.	ECY	ECY
ENV13	Air Quality	Mercury emissions	Mills provide data or Ecology collect from TRI	Pounds per air dried ton of production	Included as select indicators for "toxic emissions." Weighted by TEF, if appropriate.	ECY	ECY
ENV14	Air Quality	Acetaldehyde emissions	Mills provide data or Ecology collect from TRI	Pounds per air dried ton of production	Included as select indicators for "toxic emissions." Weighted by TEF, if appropriate.	ECY	ECY
ENV15	Air Quality	Propionaldehyde emissions	Mills provide data or Ecology collect from TRI	Pounds per air dried ton of production	Included as select indicators for "toxic emissions." Weighted by TEF, if appropriate.	ECY	ECY
ENV16	Air Quality	Hydrochloric acid emissions	Mills provide data or Ecology collect from TRI	Pounds per air dried ton of production	Included as select indicators for "toxic emissions." Weighted by TEF, if appropriate.	ECY	ECY
ENV17	Air Quality	Barium emissions	Mills provide or Ecology collect from TRI	Pounds per air dried ton of production	Included as select indicators for "toxic emissions." Weighted by TEF, if appropriate.	ECY	ECY
ENV18	Air Quality	Manganese emissions	Mills provide or Ecology collect from TRI	Pounds per air dried ton of production	Included as select indicators for "toxic emissions." Weighted by TEF, if appropriate.	ECY	ECY
Energy Consumption							
ENV19	Energy Consumption	Net consumption of purchased electricity and fuel	Mills provide data from purchasing or energy department records	Consumption in megajoules minus sales in megajoules	Conversion to megajoules (MJ). There are a variety of on-line tools for energy conversions. See, e.g.: http://www.rprogress.org/energyfootprint/calculators/?id=1	NA	NA
ENV20	Energy Consumption	Energy used/sold from cogeneration	Mills provide data	Megajoules from cogeneration per air dried ton of production		NA	NA
ENV21	Energy Consumption	Intensity of energy used per unit production	Mills provide data	Megajoules consumed from all sources per air dried ton of production		NA	NA
ENV22	Energy Consumption	Percent of energy use from renewable sources	Mills provide data using EPA's e-grid for the mill's region.	Ratio of megajoules from renewable sources to total megajoules consumed	Includes solar, wind, hydro, biomass and biofuels including black/red liquor. EPA's E-grid webpage - http://www.epa.gov/cleanenergy/energy-resources/egrid/index.html	77.8	77.3
Environmental Management							
ENV23	Environmental Management	Index of EMS levels	Ecology provides data	0, 1, or 2	0 for no EMS, 1 for EMS with no third party review, and 2 for EMS with third party review.	ECY	ECY
Raw Materials							
ENV24	Raw Materials	Percent of raw materials input from recycled/reused sources	Mills provide data from purchasing and fiber procurement records	Ratio of tons of raw material inputs from recycled and/or re-used sources to tons of raw material inputs total	Includes RFO, chips, fiber, broke, precipitated calcium carbonate (PCC), oil recycled/reused on site and other materials.	NA	NA
ENV25	Raw Materials	Percent raw fiber and biomass energy materials from FSC/SFI certified sources	Mills provide data from purchasing and fiber procurement records	Ratio of tons of raw fiber and biomass energy materials from FSC/ SFI certified sources to tons of raw fiber and biomass energy materials total		NA	NA

ENV26	Raw Materials	Average percent of recycled fiber content in products	Mills provide data from purchasing and fiber procurement records	Weighted average of recycled content in products	Aggregation function of % in each product and product % of total product. Weighted averages are constructed by multiplying each product's share of total production (in tons) by its recycled content, then summing.	50%	45%
ENV27	Raw materials	Raw material intensity	Mills provide data from purchasing and environmental records	Tons of raw materials minus tons of raw materials that are recycled or reused per air dried ton of production	Total tons materials used minus recycled or reused input, per ton product. Materials that are factored in must be consistent across years.	NA	NA
Regulatory Compliance							
ENV28	Regulatory compliance	Percent of monitoring period in compliance	Ecology provides data	Percent	Agency will determine how exactly to be measured, what to be included from those measured continually versus periodically.	ECY	ECY
ENV29	Regulatory compliance	Percent below/above limits	Ecology provides data	Percent of time below and above permit limits	Agency will develop as a function of % below limits and % time.	ECY	ECY
Waste Disposal							
ENV30	Waste Disposal	Percent waste recycled (on or off site) of total tons	Mills provide data from environmental records	Ratio of tons of waste recycled on or off site to total tons of waste generated		NA	NA
ENV31	Waste Disposal	Percent landfilled to total tons	Mills provide data from environmental records	Ratio of tons of waste sent to landfill to total tons of waste generated	ratio to offsite landfill	60:100	54:100
ENV32	Waste Disposal	Percent composted of total tons	Mills provide data from environmental records	Ratio of tons of waste composted to total tons of waste generated		0	0
ENV33	Waste Disposal	Percent re-used (on or off site) of total tons	Mills provide data from environmental records	Ratio of tons of waste re-used on or off site to total tons of waste generated		0	0
Water Intensity							
ENV34	Water Intensity	Reused water-use per ton of product	Mills provide data	Cubic feet of recycled water used per air dried ton of production	Agency and consultant will revisit overlap with indicator below after mill data on raw water intake, recycled water and water outflow collected.		
ENV35	Water Intensity	Percent of water reused to raw water intake	Mills provide data from environmental records	Ratio of cubic feet of recycled water consumed to cubic feet of raw water intake			
ENV34	Water Intensity	Net water consumption	Mills provide data	Cubic feet of water used from non-recycled sources, less total outflow.		NA	NA
ENV35	Water Intensity	Raw water intake per unit production	Mills provide data	Cubic feet of raw water intake per air dried ton of production		NA	NA
Water Quality							
ENV36	Water Quality	Temperature difference between incoming and outgoing water	Mills provide data from environmental records		BTUs variance factored by volume per day measured at intake as reference point. Precise measurement units and methods will be provided by agency and mills.	24.2	21.6
ENV37	Water Quality	Discharged BOD as percent of permit limit	Ecology provides data from Water Quality Permit Life Cycle System (WPLCS)	Ratio of discharged annual BOD tons to permit limit BOD	Check time frame and units of weight/ volume in permit	ECY	ECY
ENV38	Water Quality	Total Suspended Solids (TSS) discharged as percent of permit limit	Ecology provides data from WPLCS	Ratio of discharged annual TSS tons to permit limit TSS	Check time frame and units of weight/ volume in permit	ECY	ECY
ENV39	Water Quality	Adsorbable Organic Halide (AOX) output	Ecology provides data from WPLCS	Pounds per air dried unit of production		ECY	ECY
Biodiversity Conservation							
ENV40	Biodiversity Conservation	Percent of acres facility owned land protected as habitat.	Mills provide data from environmental records	Ratio of protected acres to total acres	Refine "protected." Suggestion: any existing natural lands mills pledge to leave undeveloped or to restore.	0	0

NOTES:
Defn: Recycled - change in physical form. Ex:pallets ground up for fuel
Defn: Reused - does not change the physical form. Ex:pallets reused as pallets

Economic Indicator Domain							
#	Set	Indicator	Data Collection Source	Units (annual)	Comments	2006 data (annual)	2007 data (annual)
Economic Impact							
ECON1	<i>Economic Impact</i>	Regional economic impact	Mills provide data in the I/O model from accounting and purchasing records	Direct, indirect and induced income, jobs, and tax revenue generated per air dried ton of production	From data put in the I/O model output.	use regional estimate	use regional estimate
ECON2	<i>Regional Economy</i>	Percent of revenue spent regionally	Output of I/O model from accounting and purchasing records	Percent	Region to be defined by agency in scoping of I/O model data.	use regional estimate	use regional estimate
ECON3	<i>Regional Economy</i>	Percent of purchases procured regionally	Output of I/O model	Percent	Region to be defined by agency in scoping of I/O model data.	use regional estimate	use regional estimate
ECON4	<i>Economic Impact</i>	Net capital investment in facility	Mills provide data	Ratio	Ratio of capital investment (spread over years) to depreciation, replacement, and maintenance	NA	NA
Community Involvement							
ECON5	<i>Community Involvement</i>	Total spending on habitat conservation/restoration	Mills provide data from environmental records	Dollars	Restoration projects, habitat improvement on or off site.	29,000	27,000
ECON6	<i>Community Involvement</i>	Contributions to charities and non-profit organizations	Mills provide data from HR	Dollars	Corporate giving in mill community (blood drives, food/goods collection, armed services support, natural disaster support, Cancer Society walk, United Way, or any other charities, churches or non-profit organizations).	27,374	34,822
ECON7	<i>Community Involvement</i>	Contributions to local education	Mills provide data from HR	Dollars	Corporate giving in mill community for internship programs, scholarships and grants; financial support of local schools.	7500	9500
ECON8	<i>Economic Development</i>	Recycled/Reused market creation	Mills provide data from sales and marketing records	Dollars	Total money spent on recycled and reused material inputs/outputs. Includes used equipment purchased. Market price estimates used where recycled inputs not purchased.	NA	NA
Employment Opportunities							
ECON9	<i>Jobs</i>	Average compensation including benefits	Mills provide data from HR	Dollars		85,858	85,539
ECON10	<i>Jobs</i>	Percent of total jobs at family wage level	Mills provide data from HR	Percent	Agency will supply comparison data for family wage jobs.	100%	100%
ECON11	<i>Jobs</i>	Percent of total jobs providing benefits	Mills provide data from HR	Percent		100%	100%
Customer Satisfaction							
ECON12	<i>Customer Satisfaction</i>	Claims paid including returns	Mills provide data from quality services records	Ratio	Dollars : million dollars in sales. To be expressed per certain sales volume to normalize and account for year to year sales fluctuations.	NA	NA

Social Indicator Domain

#	Set	Indicator	Data Collection Source	Units	Comments	2006 data (annual)	2007 data (annual)	
Community Involvement								
	Community Involvement	Volunteerism for location education	Mills provide data from HR records	Hours per employee	Number of personnel hours among workers contributing non-profit education, local schools, environmental education or other educational activities.	10	10	indirect volunteer hours
	Community Involvement	Volunteerism for community benefit	Mills provide data from HR records	Hours per employee	Number of personnel hours among workers contributing to any volunteerism or leadership positions in charity/civic/non-profit organization.	90	90	indirect volunteer hours
	Community Involvement	Number of social awards	Mills provide data from Environmental and HR records	Number	Awards received for social, ethical, and environmental performance.	NA	4	
Environmental Nuisance								
	Environmental Nuisance	Number of odor complaints	Mills provide data from logs kept and ISO 14001 records for those that are certified kept and Ecology provides data from Environmental Report Tracking System (ERTS)	Number		71	182	
	Environmental Nuisance	Intensity of operational traffic	Mills provide data from fiber purchasing, transportation records	Truck vehicle miles traveled per air dried ton of production	Both number of trips and distance important to measure.	28.9	28.4	
Health and Safety								
	Health and Safety	OSHA Compliance	Mills provide data	Number	One point awarded for confirmed compliance without any fines imposed for incidents during the year.	1	1	
	Health and Safety	Safety incidents, injuries, accidents	Mills provide data	Incidents per 100 employees	Number of accidents requiring medical attention or workers compensation. Also can be expressed as incidents per certain number of employee hours. Important to include contractors.	6.18	4.96	
	Health and Safety	Wellness programs and benefits	Mills provide data	Dollars per employee	Total value of or investment in wellness programs and benefits.	\$70	\$71	
	Health and Safety	Trained incident responders	Mills provide data	Number per 100 employees	Number of individuals trained in CPR/First AID, emergency command/response or other incident response certification.	87	87	*best estimate based on available records
	Health and Safety	Emergency and safety planning	Mills provide data	Number	Points awarded for emergency or safety response plans on file.	5	5	
Human Rights								
	Human Rights	Demographic diversity	Mills provide data	Number of employees by census category.	Data to be collected for gender and ethnicity distribution of employees. Consultant will normalize by census data. Race and ethnicity data collection should include major U.S. Census categories (White, Black, Asian, American Indian/Native, Hispanic/Latino/Spanish, Other). Consultant will calculate in relation to census data.	NA	NA	
Employee Relations								
	Employee Relations	Benefits for Family Leave	Mills provide data	Number	One point awarded for existence of all classes of leave including maternity, paternity and family leave.	offer all	offer all	
	Employee Relations	Workplace satisfaction	Mills provide data	Number	One point awarded for confirmed use of an employee satisfaction survey.	performed every 3 years;	last done	
	Employee Relations	Wage distribution gap	Mills provide data	Ratio of highest paid employee to lowest paid employee		NA	NA	
	Employee Relations	Labor Representation	Mills provide data	Percent	Including non-management employees covered by union or collective bargaining agreement	100%	100%	
	Employee Relations	Workforce turnover rate	Mills provide data	Ratio of total number of employees resigning, fired, or laid off to average annual workforce		NA	NA	
	Employee Relations	Employee training	Mills provide data	Total training hours per employee		90	90	
	Employee Relations	Benefits beyond compliance	Mills provide data	Dollars per employee		17,134	16,412	
	Employee Relations	Labor relation incidents	Mills provide data	Incidents per 100 employees	Including grievances that go to mediation and arbitration	0	0	

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